

REMARKS

Claim 1 has been amended and new claims 17 and 18 have been added. Claims 1-18 are pending. These amendments introduces no new matter, and their entry is respectfully requested.

The amendment to claim 1 clarifies that the method relates to determining of viability of living cells, and therefore does not encompass methods that render the cells nonviable. This amendment is supported by the specification as originally filed, particularly at page 3, lines 17-21, Figure 2, and the examples at pages 11-12. See also page 1, lines 17-19. New claim 17 is supported by the specification at page 5, line 13, and page 8, lines 1-6. New claim 18 is supported by page 4, lines 1-2.

Election / Restrictions

The Office Action dated July 2, 2008, required restriction of the claims into one of two claim groups as follows:

- I. Claims 1-15, drawn to a method of determining cell viability wherein cells are in contact with deuterated materials; and
- II. Claim 16, drawn to a method of determining cell viability wherein an aliquot of cells are in a medium free of deuterated materials while other cells are in contact with deuterated materials.

Election of Species Requirement

The Office Action further treated the claims as directed to more than one species of the generic invention. The species are as follows:

- A. the types of vibrational spectra as found in claims 2 and 3;
- B. the types of deuterated materials found in claims 4 and 5
- C. the methods of normalizing Raman spectra found in claims 6 and 13
- D. the various target wavenumbers found in claim 7
- E. the various reference wavenumbers found in claims 8-12.

Election and Traversal

In response, Applicants elect group I, namely claims 1-15, with traverse. As to the election of species requirements, Applicants elect the following:

- A. vibrational spectra: Raman;
- B. deuterated materials: 6,6- dideutero- α -D-3-O-trideuteromethylglucose;
- C. methods of normalizing Raman spectra: that of claim 13;
- D. target wavenumbers: 2400-2600 cm^{-1} ;
- E. reference wavenumbers: 300-1850 cm^{-1} .

Applicants respectfully dispute the assertion by the Office Action that the two claim groups involve distinct inventions. Applicants assert that a search into prior art with regard to the invention of the different groups is so related that separate significant search efforts are unnecessary. The subject matter of each of the claim groups is linked by a common inventive concept, namely the use of deuterated materials and vibrational spectra in a method to determine cell viability. Accordingly, there is no serious burden on the Examiner to collectively examine the different claim groups of the subject application. Therefore, restriction is not proper.

It is alleged at page 2 of the Office Action that the inventions of groups I-II do not relate to a single inventive concept under PCT Rule 13.1 because the subject matter found in invention I is allegedly not new. It is alleged that the "subject matter of invention I is taught by Harhay (EP 818674 A), wherein Harhay discloses a method for determining cell viability (see claims 1 and 5) and it is indicated that vibrational spectra emitted by cells are inherently indicative of metabolism." Applicants respectfully disagree with this interpretation of the teachings of Harhay. Claim 1 of Harhay recites a "method of identifying an analyte in a sample", with claim 5 further reciting that "said sample comprises body fluid, cells, tissues, or waste from a human or non-human animal body." No teaching is provided, explicitly or implicitly, that this method can be modified to arrive at a method of determining cell viability. It is further noted that the wavelengths and sample preparation conditions, as well as other experimental parameters, taught in Harhay would be fatal to cells, thereby teaching away from a method that allows for determining cell viability.

Conclusion

In view of the foregoing, Applicants respectfully request the Examiner reconsider and withdraw the restriction requirement. It is also submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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Date: August 4, 2008